# Translation

## PATENT COOPERATION TREATY



## **PCT**

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P02106WO.1P	FOR FURTHER ACTION See Notification of Transmittal of Internation Preliminary Examination Report (Form PCT/IPEA/416
International application No. PCT/DE2003/004190	International filing date (day/month/year) Priority date (day/month/year)
International Patent Classification (IPC) or r H04L 9/32	19 December 2003 (19.12.2003)  08 January 2003 (08.01.2003)  national classification and IPC
Applicant	DEUTSCHE TELEKOM AG
This international preliminary examinated and is transmitted to the applicant action.	ination report has been prepared by this International Preliminary Examining Authority
2. This REPORT consists of a total of	5 sheets, including this cover sheet.
This report is also accompanie amended and are the basis for	ed by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been this report and/or sheets containing rectifications made before this Authority (see Rule Administrative Instructions under the PCT).
These annexes consist of a tot	
3. This report contains indications relati	ng to the following items:
I Basis of the report	
II Priority	
III Non-establishment of	opinion with regard to novelty, inventive step and industrial applicability
IV Lack of unity of inven	ation
V Reasoned statement un citations and explanati	nder Article 35(2) with regard to novelty, inventive step or industrial applicability; ions supporting such statement
VI Certain documents cite	ed
VII Certain defects in the i	international application
VIII Certain observations of	n the international application
ate of submission of the demand	Date of completion of this report
28 July 2004 (28.07.200	
me and mailing address of the IPEA/EP	Authorized officer
esimile No.	Telephone No.

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International application No.

PCT/DE2003/004190

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### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/DE 03/04190

. Reasoned statement under Article a citations and explanations supporti	35(2) with regard to novelty, ng such statement	inventive step or industrial app	olicability;
Statement			
Novelty (N)	Claims	1-8	YES
	Claims		NO
Inventive step (IS)	Claims	1-8	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-8	YES
	Claims		NO

2. Citations and explanations

1. This report makes reference to the following documents:

D1: DE 198 45 199 A (MAZ MIKROELEKTRONIK ANWENDUNGS), 6 April 2000 (2000-04-06)

D2: US 2002/169970 A1 (CANDELORE BRANT L), 14
November 2002 (2002-11-14)

2. The subject matter of the application relates to a process (claim 1) and system (claim 7) for providing a time stamp by means of a tamper-proof time signal in a telecommunications network, as well as the use (claim 5) of the process when transmitting data between network subscribers.

#### 3. Prior art:

Document D1 constitutes the closest prior art and discloses a process according to the preamble of claim 1, in which an officially recognised time signal is received and encrypted by a mobile network operator and transmitted to network subscribers and decrypted over the mobile telecommunications network.

#### 4. Novelty:

The subject matter of independent claims 1 and 7 therefore differs from the known process in that:

- encryption and decryption are carried out with the same key;
- synchronous clock systems are provided at the central system and at the network subscribers and generate a key that changes synchronously in time.

The subject matter of claim 1 (and of claim 7) is therefore novel (PCT Article 33(2)).

#### 5. Inventive step:

The present invention can therefore be considered to address the problem of securing time signal encryption against tampering.

The solution to this problem, as proposed in claims 1 and 7 of the present application, involves an inventive step (PCT Article 33(3)) for the following reasons:

In D1, the time signal is encrypted at the mobile network operator, rather than at the central system; the officially recognised time signal can thus be tampered with between the central system and the mobile network. In addition, encryption is based in D1 on network operator technology, and no temporal alteration of the symmetrical key by synchronous clock systems is proposed.

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D2 describes a system similar to that in D1 for a "content players" network. Time signal encryption is not carried out by means of a symmetrical key variable in time.

Claims 2-6 and 8 are dependent on claim 1 or 7 and therefore likewise meet the PCT novelty and inventive step requirements.

#### 6. Observations:

The expression "in particular" used in claims 1 and 7 leaves the reader uncertain about the presence of the technical feature in question within the scope of protection of claims 1 and 7.